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SUDDEN OAK DEATH FACTS

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CAUSAL ORGANISM: *Phytophthora ramorum*, optimal growth temperature is 68 F. It is killed at temperatures of 95 F and above.

SYMPTOMS: Bleeding, sunken cankers on tree branches and trunk of oak and tanoak followed by rapid (within 6-8 weeks under optimal conditions, longer under warmer, drier conditions) death of oaks. Leaf spots, tip dieback, or blights occur on ornamental hosts.

CONFIRMED HOSTS: *Pieris* (*Pieris* spp.), *Camellia* (*Camellia* spp.), Coast live oak (*Quercus agrifolia*), canyon live oak (*Q. chrysolepis*), California black oak (*Q. kelloggii*), Shreve oak (*Q. parvula* var. *shrevei*), tanoak (*Lithocarpus densiflora*), rhododendron and azalea (*Rhododendron* spp.), huckleberry (*Vaccinium ovatum*), California buckeye (*Aesculus californica*), madrone (*Arbutus menziesii*), manzanita (*Arctostaphylos manzanita*), bay laurel (*Umbellularia californica*), California coffeeberry (*Rhamnus californica*), toyon (*Heteromeles arbutifolia*), honeysuckle (*Lonicera hispidula*), bigleaf maple (*Acer macrophyllum*), viburnum (*Viburnum* spp.), coast redwood (*Sequoia sempervirens*), Douglas fir (*Pseudotsuga mezesii*), western star flower (*Trientalis latifolia*), witch hazel (*Hamamelis virginiana*), wood rose (*Rosa gymnocarpa*). Many other plants are being tested. This list is expected to grow.

TRANSMISSION: Probably by spores spread in wind and rain. Possibly on unprocessed wood and wood products. Possibly on soil in plants, on tires and footwear.

DISTRIBUTION IN CALIFORNIA: The counties of Alameda, Contra Costa, Humboldt, Marin, Mendocino, Monterey, Napa, San Mateo, Santa Clara, Santa Cruz, Solano, Sonoma

OTHER LOCATIONS: Curry County, Oregon and many countries in Europe, including Germany, Italy, France, Spain, Belgium, the Netherlands, Poland, Sweden, and the United Kingdom

WEBSITES: California Oak Mortality Task Force: suddenoakdeath.org
Integrated Hardwood Management Program: danr.ucop.edu/ihrmp

